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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,375	11/15/2001	Adrian E. Ong	M-9433 US	4697

7590 03/03/2005

PHILIP W. WOO  
C/O SIDLEY AUSTIN BROWN AND WOOD LLP  
555 CALIFORNIA STREET  
SUITE 5000  
SAN FRANCISCO, CA 94104-1715

EXAMINER

NGUYEN, TUNG X

ART UNIT PAPER NUMBER

2829

DATE MAILED: 03/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/003,375	ONG, ADRIAN E.	
	Examiner	Art Unit	
	Tung X Nguyen	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 18-27 and 29-32 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 33-38 is/are allowed.
- 6) ☒ Claim(s) 11-17, 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. The amendment filed on 11/18/03 has been entered and made of record as paper number 1103. Claims 1-17, 28, 33-38 are pending.
2. Claims 18-27, and 29-32 are required to cancel as belonging to a non-elected invention requirement in Paper No. 4, when the case is in the condition ready for allowance.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 11-17, 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeuchi (u.s.p 4,743,841).

As to claim 11, Takeuchi discloses in Figs. 1-4, an integrated circuit comprising a test pad (32, 33 of figures 1) and plurality of bond pads (31 of figure 1) wherein the bond pad associated with a respective portion of the function circuitry (8, 9 of figure 1); wherein the test pad contacting with a probe needle (col. 4, lines 52-55); and a signal transmitting from the probe to at least one respective portions of functional circuitry to be tested; wherein the bond pad without any contacting with the test probe.

As to claims 12-14, Takeuchi discloses in Figs. 1-4, an integrated circuit (fig. 1) wherein the signal is input from the probe needle (30, 32, 33 of fig. 1) and

demultiplexing and/or multiplexing the input signal into the portions of the function circuitry (8, 9 of figure 1).

As to claim 15, 16, Takeuchi discloses in Figs. 1-4, an integrated circuit (fig. 1) wherein the test pad (32, 33 of figure 1) is a bonding pad and/or probe pad.

As to claim 17, Takeuchi discloses in Figs. 1-4, an integrated circuit (fig. 1) wherein the test pad is located on the integrated circuit die (32, 33 of fig. 1) remote from the bonding pads (31).

As to claim 28, Takeuchi discloses in Figs. 1-4, an integrated circuit and method for testing function circuitry of an integrated circuit comprising: functional circuits (8, 9 of figure 1); means (30-33 of figure 1) for bonding wires to the functional circuitry (8,9 of figure 1); means (Vcc) for applying one or more test signals to the functional circuitry (8,9 of figure 1), wherein the bond pad (31 of figure 1) are not contacted by probe pins.

***Allowable Subject Matter***

5. Claims 1-10, and 33-38 are allowed.

As to claim 1-10 and 33-38, the prior art does not teach the integrated circuit having multiplexing circuitry between the probe pad and the bond pads, the multiplexing circuitry for multiplexing signals between the probe pad and each of respective portions of the functional circuitry, thus allowing the respective portions of functional circuitry to be tested using the probe pad and without any contact of the plurality of bond pads by a probe needle; in combination with the other claimed features.

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**Response to Arguments**

6. Applicant's arguments with respect to claims 1-17, 28, 33-38 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X Nguyen whose telephone number is (571) 272-1967. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TN  
2/12/04

*David A. Zarneke*  
David A. Zarneke  
Primary Examiner  
AU2827  
2/20/04